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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/740,345	12/18/2000	Minoru Mukaida	F-6783	5183
7590	03/23/2005		EXAMINER	
BRUCE S. LONDA NORRIS MCLAUGHLIN & MARCUS 220 EAST 42ND STREET 30TH FLOOR NEW YORK, NY 10017			RICKMAN, HOLLY C	
			ART UNIT	PAPER NUMBER
			1773	

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/740,345

Applicant(s)

MUKAIDA, MINORU

Examiner

Holly Rickman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/30/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28-47 is/are pending in the application.
- 4a) Of the above claim(s) 39-47 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 28-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 28-47 are pending. Claims 39-47 are withdrawn from consideration.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/30/04 has been entered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 28-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Craven (U53878147) in view of The Encyclopedia of Polymer Science, Vol. 3, November 1985, pg. 552.

Craven teaches a composition that is used to increase the friction of surfaces on ice, particularly the surfaces of automobile and truck tires (column 1, lines 5-8). The composition is a mixture of a binder and fine particles that possesses excellent adherence to rubber substrates and

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provides a high level of friction on icy roads (column 1, lines 21-25). The composition comprises 5-25% by weight of a soluble elastomer, 43-92.99% by weight of a solvent for the elastomer, and 2-20% by weight of dispersed inorganic particles having a particle size of about .2-105 gm, Craven teaches that suitable elastomers for the coating composition include polyurethane, as well as a number of other elastomers, Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to select polyurethane as the flexible polymeric binder, as polyurethane is taught by Craven to be equivalent to the other binders listed. Craven teaches the addition of particles having an average diameter in the range of about 0.2-105microns. As 0.2 microns is completely encompassed by the claimed range, Craven meets the limitations directed to average particle diameter.

With respect to the claimed viscosity limitation, Craven does not specifically disclose this feature of the claims. However, it is noted that Craven does teach the application of the coating via various methods, including brushing, dipping, spraying, etc. (column 2, lines 63-68). Furthermore, The Encyclopedia of Polymer Science, Vol. 3, November 1985, pg. 552 teaches common coating methods and the viscosity range of compounds that are coated utilizing those methods. From this disclosure, the examiner takes the position that the viscosity of the coating is a result effective variable. It would have been obvious to one with ordinary skill in the art to optimize the viscosity of the coating of Craven to meet the requirements of the coating method to be utilized. Regarding the applicants claimed thickness requirement, the examiner notes that Craven teaches that the thickness of the film is "about 0.5 mils." It is the examiners position that "about .5 mils" encompasses .4 mils, which is equivalent to applicants claimed 10 microns. Thus, Craven meets this limitation. However, should applicant traverse this argument, it is noted that

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Craven teaches that a film that is 1-2 mils thick will typically remain on the tire for 5-10 miles, depending on road conditions. Thus, the thickness of the film is a result effective variable, with a thinner film remaining on the tire for shorter distances, and vice versa. Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to control the thickness of the Craven film to suit the distance to be traveled. Shorter distances would require a thinner coating, thereby conserving material.

Claim 30 requires the antislipping agent to comprise silicon oxide, aluminum oxide, cerium oxide, silicon carbide, or a fine particulate organic material. Craven teaches that suitable materials for the particulate material include aluminum oxide, silica (synonymous with silicon oxide), silicon carbide, and other inorganic particles (column 2, lines 8-22). Claims 31-33 further limit the viscosity range of the coating. The examiner maintains that it would be obvious to alter the viscosity of the coating to enable a desired coating method to be utilized, as set forth above.

Claims 34-35 further limit the thickness of the film. The examiner maintains that coating thickness is a result effective parameter. Thus, it would have been obvious to one of ordinary skill in the art to determine the optimal coating thickness depending on the desired life of the coating.

Claim 38 requires the particles to have a diameter in the range of 10-100nm. The examiner notes that Craven teaches that the particles have a suitable particle size of "about" 0.2 microns. As "about" 0.2 encompasses 0.1 microns (equivalent to 100nm), the limitations of claim 38 are met.

5. Applicant's arguments filed 12/30/04 have been fully considered but they are

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not persuasive.

Applicant argues that Craven teaches particles having a particle size with an average diameter up to 105 microns. Thus, Applicant argues, Craven does not meet the claim limitations directed to a particle size of less than 10 microns. The Examiner respectfully disagrees. Craven discloses an end point of 0.2 microns for the average particle size. This value clearly falls within the claimed range.

Applicant argues the presence of unexpected results associated with the claimed thickness range (i.e. "a thickness of 0.01 to 10 μ m"). Applicant references the evidence set forth in the declaration filed under 1.132.

The 1.132 declaration originally filed 12/30/04 has been entered into the record but most of the "EXPERIMENTS" section shown on pages 2-4 is illegible. The examiner contacted Mr. Bruce Londa on March 18, 2005 and requested that the document be faxed directly to the examiner for consideration. However, the faxed document was also illegible. Applicant is asked to resubmit a clear copy of the declaration for consideration by the examiner.


The data set forth in the specification has been fully considered by the examiner. However, no conclusion regarding the presence of unexpected results associated with the claimed thickness range can be determined because the data set forth in the specification does not include any measurements of this particular parameter.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Holly Rickman whose telephone number is (571) 272-1514. The examiner can normally be reached on Monday-Friday 9:30-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Holly Rickman", with a stylized flourish at the end.

Holly Rickman
Primary Examiner
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March 18, 2005